Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for assaying DNA primase activity comprising:

~~contacting a~~ providing a reaction mix comprising a nucleic acid template, a DNA primase, and ribonucleoside triphosphates;

incubating the reaction mix such that the triphosphates polymerize to form RNA~~polymerizing the triphosphates to form RNA~~; and

detecting directly the RNA with a fluorescent marker that binds the RNA, wherein the detecting step requires no further steps of separating the RNA product from the incubation reaction mix.

2. (Original) The method of claim 1, wherein the fluorescent marker is added before polymerization.

3. (Original) The method of claim 1, wherein the fluorescent marker is added after polymerization.

4. (Original) The method of claim 1, wherein the DNA primase is bacterial.

5. (Original) The method of claim 4, wherein the DNA primase is selected from *E. coli* DNA primase, *S. pneumoniae* DNA primase, *S. aureus*, and *H. influenzae* DNA primase.

6. (Original) The method of claim 1, wherein the fluorescent marker is selected from SYBR Green II, RiboGreen, and YO-PRO-1.

7. (Currently Amended) The method of claim 1, wherein the nucleic acid template comprises ~~is selected from~~ SEQ ID NO:1~~, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8.~~.

8. (Original) The method of claim 1, wherein the assay is carried out in the presence of helicase.

9. (Canceled)

10. (Original) The method of claim 1, wherein the detecting is accomplished by measuring fluorescence intensity.

11. (Currently Amended) A method for identifying compounds that modulate DNA primase activity comprising:

~~contacting a~~ providing a reaction mix comprising a nucleic acid template, a DNA primase, and ribonucleoside triphosphates, with a test compound;

incubating the reaction mix such that the triphosphates polymerize to form RNA~~polymerizing the triphosphates to form RNA~~;

~~binding a fluorescent marker to the RNA;~~ and

detecting directly the RNA with a fluorescent signal marker that binds the RNA, wherein the detecting step requires no further steps of separating the RNA product from the incubated reaction mix and wherein a change in the fluorescent signal in the presence of said compound as compared with the fluorescent signal in the absence of said compound indicates that said compound modulates DNA primase activity.

12. (Original) The method of claim 11, wherein the fluorescent marker is added before polymerization.

13. (Original) The method of claim 11, wherein the fluorescent marker is added after polymerization.

14. (Original) The method of claim 11, wherein the DNA primase is bacterial.

15. (Original) The method of claim 14, wherein the DNA primase is selected from *E. coli* DNA primase, *S. aureus* DNA primase, *S. pneumoniae* DNA primase, and *H. influenzae* DNA primase.

16. (Original) The method of claim 11, wherein the fluorescent marker is selected from SYBR Green II, RiboGreen, and YO-PRO-1.

17. (Currently Amended) The method of claim 11, wherein the nucleic acid template comprises ~~is selected from~~ SEQ ID NO:1~~, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, and SEQ ID NO:8~~.

18. (Original) The method of claim 11, wherein the assay is carried out in the presence of helicase.

19. (Canceled)

20. (Original) The method of claim 11, wherein the detecting is accomplished by measuring fluorescence intensity.